



so priority of uses must be determined. The number of user groups and types of users ranges from softball to archery, camping to wheel chair basketball, and four wheeling to dog parks. The same type of diversity can also be seen when looking at even one population of users—people who want to recreate with their dogs.

Diversity of Dogs & Owners

People and dogs have different skills, abilities, needs and wants. Each can determine the type of space and type of activity people and their pets like to participate in. In general, people want one of two types of recreational opportunities with their dogs:

- 1) Dogs exercising and socializing while the owners watch and socialize
- a) Dog Parks
- 2) Owners and dogs both actively participating in recreation
- a) Agility; Walking, running or biking on trails; Frisbee; Skijoring, etc.

People recreate for exercise for them and their dog, as well as socialization for each. And for some, having a dog along also brings a sense of security.

Dogs also have different abilities and have been breed for different types of activities. The list of breeds, abilities and talents are as different as each person. Examples of a variety of recreation opportunities for dogs include: Agility, carting, coursing, dog sledding, earthdogs, fox hunting, Frisbee, Greyhound racing, herding, hunting, lure coursing and racing, musical freestyle, obedience, protection sports, search & rescue, showing, skijoring, trail dogs, traveling, weight pulling, water training and sports.

Boise Parks & Recreation Department Endeavors

Parks & Recreation professionals need to determine if recreating with dogs is a valuable recreational need in their community. In addition, due to the diversity of dogs and users, not only does the need have to be recognized but so does the specific type of use(s). Boise Parks & Recreation has researched, studied, worked with the community and is still developing the following types of areas:

Dog Off-Leash Areas

In 1998, the Board of Park & Recreation Commissioners directed staff to created a Dog Off-Leash Area (DOLA) Task Force to determine if off-leash use was an appropriate recreational activity and use of space. The citizen task force met monthly for a year to consider the merits of establishing dog off-leash areas (DOLAs) within the City of Boise. The task force concluded, proposed and the Board of Park & Recreation Commissioners approved DOLAs in each quadrant of the city. Recognizing that DOLAs need to be operated in a clean and orderly manner, the task force developed a set of minimum requirements as well as, rules and regulations for all approved sites. The Department is still working to develop and fund such sites.





Dog Off-Leash Trails

The next greatest need was accessed as off-leash trails. A Ridge-to-Rivers (partnership of various state, local and federal agencies) survey showed about a third of all user groups had one or more dogs with them while using the foothills trail system.

Fifty-nine percent of the dogs were not leashed but were under the control of their owners (within 15 feet). Twenty-three percent were off-leash and uncontrolled. Eighteen percent were leashed. Many owners were violating current law by allowing their dogs off-leash, as Boise City Code requires dogs to

be leashed on City owned trails and reserves.

Due to the results and the response from dog owners a Dog & Open Space Advisory Committee (DOSAC) was created to develop recommendations for managing agencies about dogs, their owners and the use of open space and trails in the foothills.

The Dogs and Open Space Committee met for several months to discuss whether the City should designate certain areas as off-leash, where dog owners could legally walk, run, hike or bike with their dogs without violating the law.

The committee believed it was important to protect sensitive bird nesting and riparian areas, endangered plants and wildlife. The committee also recognized there were areas of high use where off-leash dogs would create conflict or danger to other users.

The committee also considered the aesthetic problem and health hazards associated with dog waste that many owners leave behind when they fail to clean up after their dogs and developed strategies for mitigating each of these challenges.

Based on the recommendations, specific trails were designated off-leash and a continuing educational campaign is being ran and the trails are monitored for use and compliance.

Agility/Training Grounds

In April, 2002 Boise Agility Runners & Climbers (BARC) and the Idaho Capital City Kennel Club (ICCKC) requested support for areas to conduct training, classes and practice with dogs off-leash and the Board of Park & Recreation Commissioners directed staff to work with these organizations to find a solution.

Staff worked with both organizations and developed a policy for using park lands for the purpose of off-leash training, including agility. The policy



provided guidelines that allowed dog off leash activities and training in designated areas, by permit.

Water Training Areas

Boise Parks & Recreation proposed water-training areas in several locations, including the Boise River and a neighborhood park. Due to park neighbor concerns and eagle nesting areas, both sites were rejected. No other sites have been found suitable for training dogs in water.

Conclusion

What was apparent throughout each of the planning processes was that there were additional needs for more and differing types of off-leash facilities. Specifically, Boise area recreation providers have been asked to provide additional dog parks (with small and large dog areas), off-leash trails, Greyhound facilities, herding arenas, training grounds, water access and training facilities, and agility courses. The ability to provide areas for each of the various users is a challenge due to lack of property and funding to develop.

Facility Needs

As seen with the diverse recreation opportunities with dogs, there are numerous facility needs. Each unique type of recreation requires specific and



By following a few rules and cleaning up after their pets, dog owners can assure that trails and parks continue to be available for their use.



unique spaces and equipment. Much of the equipment can be provided by those recreating, however, much of the facility needs and open space is being requested through the park and recreation entities. Basic infrastructure, such as restroom facilities, parking, water, etc. also needs to be provide at each site. Examples include:

Agility

Either the person recreating or the recreation provider can provide equipment. Regardless, the open space needs to be provided. The basic agility course needs adequate open space, which depends on the size of the course.

Water Sports/Training

Requires water in an area where typically current is minimal with easy access. Environmental factors such as erosion, bank stabilization, nesting areas, etc. are usually the largest obstacles.

Dog Off-Leash Areas

The Boise Dog Off-Leash Area Task Force identified the minimum requirements for such an area to be as follows (separate large and small dog areas suggested):

- 1. Undeveloped land
- 2. One off-leash area in each quadrant of town (total of four off-leash areas)
 - 3. Two acres
- 4. Fencing (preferred: 6 foot fence, rounded corners, separate puppy/small dog area)
 - 5. Signage: rules and bulletin boards
 - 6. Shade
 - 7. Restrooms
 - 8. Parking access (including ADA)
 - 9. Mutt Mitt Dispensers
 - 10. Garbage Cans
 - 11. Seating (benches/picnic tables, etc.)

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Pet Companionship in Human Outdoor Recreation in Idaho

By Francis T. Achana, PhD

In spite of several decades of warnings about the potential negative health consequences of inactive lifestyles (Ebbeling et al., 2002; Sherwood, 2000; Seefeldt et al., 2002), and the well-documented health benefits of physical activity and outdoor recreation (Hernandez et al., 1999; Berkey et al., 2000; Walsh. 2001), a large proportion of adult men and women in Western cultures still maintain largely sedentary and inactive lifestyles. The American College of Sports Medicine and the Centers for Disease Control (Pate et al., 1995) and the U.S. Surgeon General's Report on Physical Activity and Health (U.S. Department of Health and Human Services, 1996) for example have recommended habitual physical activity to promote healthy living. This, together with the obesity epidemic (Hernandez et al., 1999; Berkey et al., 2000; Connolly, 2003), has often led public land management and open space agencies to seek better strategies to promote regular physical outdoor recreation activities as one of their public health priorities (Humpel et al., 2002). A New York state Assemblyman - Felix Ortiz - has gone to extent of proposing an anti-obesity bill that would tax not only fatty foods,



but also some of the modern icons of sedentary living like movie tickets, video games and DVD rentals, in order to use the resulting \$50 million for nutrition and exercise programs (Connolly, 2003).

One of the challenges of outdoor recreation research is to help recreation managers identify the determinants of outdoor recreation activity participation, and to help design interventions that can promote healthy and regular physical activity among larger sections of the population.

Some past studies in this area have catalogued a variety of factors that encourage adults to initiate and maintain physical activity. These include relatively 'invariable' demographic factors like ethnicity, gender and age. They also include supposedly more flexible and modifiable characteristics of people and their environment, such as personality, preferences and behavioral characteristics of potential participants, and the level of access that they have to safe community and environmental settings and facilities that promote participation in physical and recreational activities (Seefeldt et al., 2002).

Concerning the demographic variables, age, gender and social status have indeed been identified as variables influencing the level of human participation in outdoor physical activity and recreation (Booth et al, 2000; Addy et. al., 2004). Booth et al, (2000) found that generally, males were more physically active than females, and that among older populations, the availability of social supports, access to facilities, and neighborhood safety issues promoted more outdoor physical activity generally. When King et al., (2000) examined barriers to physical activity among a U.S. population derived from a sample of 2,912 women 40 years of age and older, some of the factors that were significantly associated with inactivity included being of Native American ethnicity, being older in age, having a low level of formal education, and infrequently observing others exercising in one's neighborhood. Brownson et al. (2001), also found that the availability of sites for outdoor physical activity was generally higher among men than among women, and that safety concerns were some of the barriers to higher female participation.

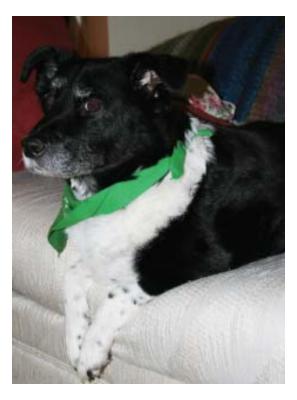
Longitudinal studies have however demonstrated that it is not the sheer availability of physical or outdoor recreation activities per se that are the driving force behind participation, since the activities themselves actually have relatively transitory impacts on measures of physical fitness and motivation to participate (Tinsley and Eldredge, 1995). Rather, it is an interest in the nature of the experiences, the psychosocial circumstances created by the activities, the cultural inputs, the background intentions of potential participants, and the level of personal control that participants can have over the activities and their outcomes, that constitute the important elements in promoting the initiation and maintenance of regular participation in outdoor recreation activities (Tinsley and Eldredge, 1995; Tinsley, 1997; Sallis, 1999; Ball et al., 2001).

Participants are interested in the presence of the conditions and contexts that are necessary for the pleasurable effects of an activity to occur; and the extent to which the recreation activities promote lasting consequences and beneficial outcomes. The subtle and flexible motivators of participation like



individual personality-driven preferences end up being, at the very least, equally important predictors of activity participation levels as the mere provision of more and more opportunities for outdoor recreation activities (Tinsley and Eldredge, 1995; Tinsley, 1997; Seefeldt et al., 2002; Brennan et al., 2003).

Goran et al., (1999), suggested that there are relatively few research data that explore the qualitative aspects of physical activity, such as the impact of intentions, psychosocial contexts of activities, and personal control, on the



frequency and intensity of the physical or recreational activity experience (Ebbeling et al., 2002). This implies that, in addition to providing new outdoor recreation opportunities to meet unmet recreation needs, recreation management interventions should also be guided by researched information on a variety of other inputs that could 'spice up' resource and regulatory modifications in order to allow them to positively influence the qualitative outcomes of outdoor recreation activities and experiences.

For example, over the years, the control of the sounds and speeds of recreationists at recreation sites, and the designation of different sites for activities in which different levels of sounds and speed are tolerated, have been used as qualitative outdoor recreation activity inputs and motivators for participation in these activities, beyond the simple provision of more and more of the same at more and more sites.

In recent times, interest has grown in companionship recreation, especially in an aging population, as one of the personal preference, psychosocial and behavioral qualitative aspects of physical and recreational activity that could play a role in promoting outdoor recreation participation ((Leschin-Hoar, 2005). Companionship recreation refers to circumstances in which the presence or absence of a companion (human or pet), with whom to participate in activities, can have a positive or negative effect on whether participation actually occurs. Some segments of the population such as women and the elderly, have been reported to cherish companionship recreation more than other sectors of the population (Booth et al., 2000; Ball et al., 2001; Seefeldt et al., 2002). For instance, Booth et al., (2000) found that having human companions such as family and friends to recreate with regularly, can improve the likelihood of engaging more frequently in outdoor recreation, for many people.



Beside human companions, pets as outdoor recreation companions have also been found to contribute positively to the intensity and frequency of the recreation experiences of people (Ball et al., 2001). Ball et al. (2001) found that, among urban Australians, significant associations exist between walking for exercise and having a walking companion (human or pet). They reported that urban Australians with no company were 31 percent less likely to report walking for exercise in the past week, than those with company. Even though this association between having company and walking for exercise was significant for both men and women, it was significantly stronger among women than among men. This could imply that companionship in some outdoor recreation activities is a strong determinant of participation, especially among women.

The City Parks of Boise, Idaho, conducted an exploratory study in Boise on the types of pets and 'beasts of burden' that are involved in the outdoor recreation of people around the city (City Parks of Boise, 2001). They found that dogs and horses were the principal animals involved in the outdoor recreation of people. A number of patterns emerged about preferred outdoor recreation schedules when pets and domesticated animals are involved. The patterns included, for example, preferred times of day and days of the week for outdoor recreation. They also found patterns related to the typical amount of time spent recreating outdoors with animals, the types of activities engaged in on such occasions, and the preferred recreation sites of people when accompanied by pets and domestic animals during their outdoor recreation activities (Jamie Heinzerling elaborates more extensively on this City Parks of Boise study in another section of this report).

The fact that discernible patterns in human recreation behavior emerge in the presence of pets and domestic animals in human outdoor recreation settings suggests that the concept of pet companionship in outdoor recreation could be yet another management tool that could be useful to recreation managers in influencing certain aspects of human recreation behaviors, including the frequency of participation, and the intensity of the experience in some outdoor recreation activities.

From a recreation management perspective, the knowledge of the types of recreationists who are most enthusiastic about pet companionship in their outdoor recreation activities, as well as the knowledge of the general levels of participation in outdoor recreation activities in the company of pets (irrespective of who the enthusiasts are), can each be important for policy setting and management purposes. The Idaho Department of Parks and Recreation for example may soon have to determine whether to allow pets to accompany recreationists in some designated yurts and cabins within the state parks of Idaho. A fuller understanding of the impacts of pet companionship on recreation activities and their participants, on other recreationists, and on the resources used, could help refine the decisions that need to be made on such issues. The yurt and cabin experience of recreationists who are allergic to animal dander for instance could be completely ruined by a policy which indiscriminately allows dogs and cats in all public cabins and yurts in state parks. Additionally, uncontrolled and



aggressive dogs could be harmful to other recreationists and their children and dogs (Leschin-Hoar, 2005), or to wildlife (Fiorello et al., 2004). Wild carnivores are susceptible to a number of pathogens that domestic dogs and cats carry, and the risk of disease spillover can provoke severe disease outbreaks and population declines in the wild species at recreation sites (Fiorello et al., 2004).

Finally, finding out about the outdoor recreation activities in which people tend to participate the most in the company of their pets, and also determining the contribution of pet involvement to the intensity of the human outdoor recreation experiences, could provide important information to recreation managers, as this information could inform policy makers about the types of strategies and interventions that could promote greater outdoor recreation participation among different segments of the population. These, essentially, are the principal rationales for this analysis.

Methodology

The Idaho Department of Parks and Recreat.... conducted a series of focus groups around the state in the early part of 2004, to identify unmet recreation needs across Idaho, as a prelude to the more extensive Statewide Comprehensive Outdoor Recreation and Tourism Plan (SCORTP) study. During the focus group sessions, the need for pet-friendly urban parks was a topic that came up a number of times. Some people were interested in the creation of pet-friendly open areas and parks around population centers, where pets could run around off-leash. Interest was also expressed in admitting pets in some of the yurts and cabins in the state parks. This is particularly important, as the creation of dog parks and other petfriendly facilities close to urban centers in order to involve dogs more formally in human outdoor recreation activities, is becoming a trend in the U.S (Leschin-Hoar, 2005). Roughly 10 new dog parks are opening up each month across the U.S., in addition to the estimated 2000 existing dog parks (Leschin-Hoar, 2005). Consequently, the eventual statewide SCORTP survey included some questions that may help us gain a better understanding of unmet needs for dog companionship in outdoor recreation in Idaho.

A commercial sampling company (ESP Printing and Mailing, Boise) was used to obtain a random sample of Idaho resident adults statewide (18 years old or more), for the SCORTP survey. The aim of random sampling is to attempt to ensure that each sampling unit of the population under study (each adult resident of Idaho in this case), has the same probability of being selected to participate in the survey. However, in the final sample obtained, females were still under-represented. Some post-stratification weighting factors were therefore applied to make the sample more 'representative' of the gender strata of the Idaho population (SPSS Inc. Resolution 18084).

Generally, respondents were asked if their dogs accompanied them in the following types of outdoor recreation activities, during the course of 2004:



- -Specific trail, road and backcountry recreation activities.
- -A variety of camping activities.
- -Specific snow-related outdoor recreation activities.

The first part of the current analysis involved determining the human outdoor recreation activities in the three activity categories above, with the highest frequency of dog participation in Idaho.

Crosstabulations were then used to examine the levels of dog companionship in the trail, road and backcountry outdoor recreation activities among various demographic categories. The demographic categories included gender, age, income and levels of formal education; and these demographic categories were used to make comparisons between dog participation in human outdoor recreation among Idaho "Dog Lovers" and among the general Idaho resident population. 'Dog lovers' were defined as anyone who participated at least once in the company of a dog, in any of the outdoor recreation activities mentioned, during the course of 2004.

The intention was to find out if there were specific sectors of the Idaho population for whom the companionship of dogs in these outdoor recreation activity.

outdoor recreation activities is of particular importance.

From the crosstabulation analysis, only the differences in participation levels that were statistically significant are presented here. Statistical significance shows that the demographic characteristic in question (e.g. male or

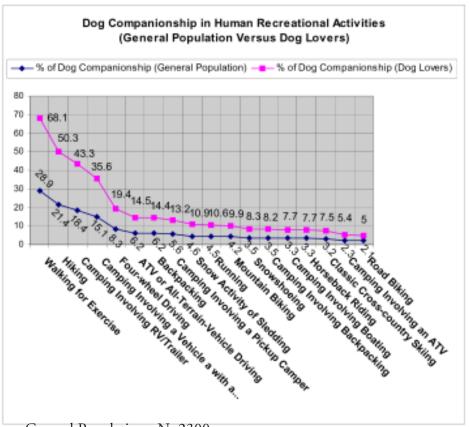
female), 'promotes' or 'deters' dog companionship in an activity to such an extent that it is unlikely that such differences among the categories of the demographic characteristics could occur just by chance. Pearson's Chi-Square was used to determine the statistical significance of the crosstabulation results, and the 95% confidence level was used. This means that when the differences were flagged as significant, we are confident that the differences are real at least 95 percent of the time, and not a result of some chance fluctuations. The 'adjusted residual' was used in the crosstabulation analysis to determine the extent to which specific categories of a demographic variable differ from the other categories (SPSS Base 8.0 Applications Guide, 1998, pg. 70 to 71).



Results

The results in Figure one juxtapose the frequency of participation in the top outdoor recreation activities in which both the general population and 'dog lovers' in Idaho were accompanied by dogs in 2004. The categories of outdoor recreation activities involved were trail, road and backcountry recreation activities, camping activities, and snow-related outdoor recreation activities.

Figure 1. Overall Frequency of Participation in the Top Dog Companionship Outdoor Recreation Activities in Idaho:

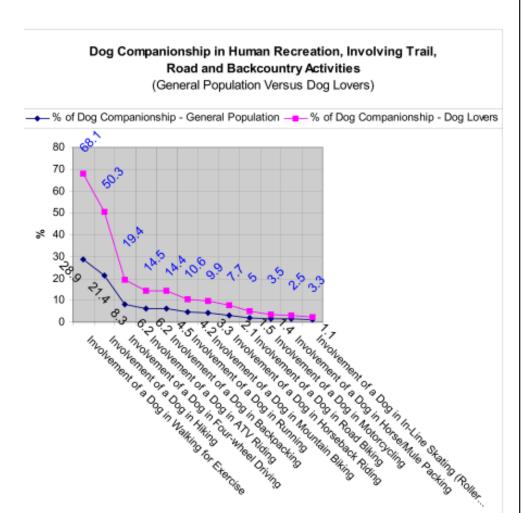


General Population: N=2300

Dog lovers: N=984



Figure 2. Dog Companionship in Trail, Road and Backcountry Recreation Activities in Idaho:



General Population: N=2300

Dog lovers: N=984

Overall, the outdoor recreation activities in which Idaho residents are most frequently accompanied by their dogs are the trail, road and backcountry activities. Of these, walking activities (walking for exercise and hiking) were dominant. Among Idaho dog lovers, 68.1% participate in the activity of walking for exercise in the company of dogs (Figure 1). In the general public, it is 28.9% who participate. Participation in dog companionship hiking is 50.3% among Idaho dog lovers, and 21.4% in the general public.

Camping is the next most popular activity category for those who prefer to be accompanied by their dogs during outdoor recreation. RV/Trailer camping and camping that involves the use of a vehicle and a tent, have the highest frequency of dog companionship camping (Figure 1). For RV/Trailer camping, 43.3% of dog lovers participate with dogs, while 18.4% of Idahoans in general do this type of camping in the company of their dogs.



The participation rates in camping that involves the company of dogs and the use of a vehicle and a tent, is 35.6% for dog lovers, while 15.1% of the general public does so as well (Figure 1).

The third most popular category of outdoor recreation activities in Idaho involving the companionship of dogs is outdoor recreation with motorized vehicles (Figure 1). The motorized recreation vehicle activities with high dog companionship participation levels were four-wheel driving (19.4% of participation among dog lovers, and 8.3% among the general public); and all-terrain-vehicle or ATV riding (14.5% of participation for dog lovers, and 6.2% among the general public). It should be noted that dog companionship in the motorized recreation vehicle activities refers to dog accompaniment on the trip rather than necessarily having a dog riding along on a motorcycle for example.

From this point onward, the study narrows its focus to the examination of dog companionship in outdoor recreation activities on trails, roads and in the backcountry. In Figure 2, the general pattern of participation in trail, road and backcountry recreation activities in the company of dogs is similar (by activity), between dog lovers and the general population, except that the dog lovers bring dogs along with them more frequently for each trail, road and backcountry recreation activity than the general public does. The overall results indicate a much higher level of interest in dog companionship in all types of outdoor recreation activities among dog lovers than in the public at large in Idaho.

Statistically Significant Differences in Participation in Trail, Road and Backcountry Pet Companionship Recreation Activities, by Demographics

Dog companionship participation levels were compared by demographic variables both within the general population and within dog-lover groups of outdoor recreationists. When the demographic variables produce statistically significant differences in participation levels in activities, it becomes possible to infer that the demographic characteristics in question significantly influence dog companionship outdoor recreation participation for those types of recreationists. Such conclusions could then be the grounded basis for recreation managers to segment the supply of dog companionship outdoor recreation facilities and opportunities according to the demographic and personal characteristics of the types of recreationists that produced the significant differences in participation. Examples of the demographic characteristics that could influence participation include gender, age, income and levels of formal education; and examples of the types of recreationists involved are dog lovers versus the general population.



Summary Table of Significant Differences in Levels of Participation in Trail, Road and Backcountry Recreation Activities in the Company of Dogs, by Demographics

Tables one to ten give a summary of the statistically significant differences in levels of participation in the various trail, road and backcountry dog companionship recreation activities that resulted from the demographic differences of participants.

The Tables also specify the 'direction' of the significant differences. In other words, the Tables indicate whether the participants are significantly more or less likely to participate in that dog companionship outdoor recreation activity, given the demographic characteristics in question. When a category of participants are neither significantly more nor significantly less likely to participate in an activity than other categories, it means that their participation level is not significantly different from the mean level of participation for the entire sample. Hence the participation level of those categories of participants is not reported on in the Tables.

The Tables also show whether the differences in participation levels occur among the general Idaho population or among Idaho dog lovers, or both. This allows us to determine whether the participation levels of dog lovers in dog companionship outdoor recreation activities are equally affected by demographic differences as are members of the general public.

Finally, the number of respondents in the two distinct samples (the general population of Idaho and Idaho dog lovers) is indicated in the 'N' column.

Table 1. Walking for Exercise in the Company of Dogs

Dog Companionship Outdoor Recreation Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
	By Gender	General Population	Females	-	2300
	Gender	Dog Lovers	Females	-	977
Walking for	By Age	General Population	36 to 45 age group	66 and older age group	2281
Exercise		Dog Lovers	-	-	
	Ву	General Population	Higher incomes	-	2206
	Income	Dog Lovers	-	-	



Table 2. Hiking in the Company of Dogs

Dog Comp Outdoor R Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
Hiking	By Age	General Population	36 to 45 age group	56 to 65 age group 66 and older age group	2281
	2,	Dog Lovers	36 to 45 age group	66 and older age group	968

Table 3. Hiking in the Company of Dogs (Continued)

	panionship Recreation	Type of Recreationist	Demographic Segment Significantly More Likely Participate	Demographic Segment Significantly Less Likely to Participate	N
I	By Gender	General Population Dog Lovers	Females		2300
	By	General Population	Some College but no 4-Year Degree	High School Diploma	2293
Hiking	Education	Dog Lovers	-	-	975
	By Income	General Population	Higher Levels of Income	-	2206
		Dog Lovers	-	-	

Table 4. Running in the Company of Dogs

Dog Comp Outdoor R Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly <u>Less Likely</u> to Participate	N
Running	By Age	General Population	16 to 35 age group 36 to 45 age group	56 to 65 age group 66 and older age group	2281
		Dog Lovers	16 to 35 age group 36 to 45 age group	56 to 65 age group	968
Dog Comp Outdoor R Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
Running	By Gender	General Population Dog Lovers	Females Females		2300 977



Table 5. Mountain Biking in the Company of Dogs

Dog Compa Outdoor Re Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
Mountain Biking	By Age	General Population	36 to 45 age group	56 to 65 age group 66 and older age group	2281
		Dog Lovers			968
	Ву	General Population	-	-	
	Education	Dog Lovers	Higher Levels of Education	-	975

Table 6. Backpacking in the Company of Dogs

Dog Compan Outdoor Rec Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
	D. A.	General Population	36 to 45 age group	56 to 65 age group	2281
Back- packing	By Age	-	-	66 and older age group	
		Dog Lovers	-	-	

Table 7. Recreational Four-wheel Driving in the Company of Dogs

Dog Companionship Outdoor Recreation Activity		Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
	By Age	General Population	36 to 45 age group	66 and older age group	2281
Recreational		Dog Lovers	-	-	
Four-wheel driving (jeeps,	Ву	General Population	-	-	
pickups, SUVs, etc.)	Gender	Dog Lovers	Males	-	977
	By Education	General Population	Some College but no 4-Year Degree	Graduate Degree	2293
		Dog Lovers	-	Graduate Degree	975



Table 7. Recreational Four-wheel Driving in the Company of Dogs

Dog Companionship Outdoor Recreation Activity		Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
	By Age	General Population	36 to 45 age group	66 and older age group	2281
Recreational Four-wheel driving (jeeps,		Dog Lovers	-	-	
	Ву	General Population	-	-	
pickups, SUVs, etc.)	Gender	Dog Lovers	Males	-	977
	By Education	General Population	Some College but no 4-Year Degree	Graduate Degree	2293
		Dog Lovers	-	Graduate Degree	975

Table 9. Motorcycling – dual sport or dirt bike - in the Company of Dogs

Dog Companion Outdoor Recrea Activity	•	Type of Recreationist	Segment Segr Significantly Sign More Likely to Less	Demographic Segment Significantly Less Likely to Participate	N
Motorcycling	By Age	General Population	36 to 45 age group	66 and older age group	2281
Riding – Dual Sport or Dirt Bike		Dog Lovers	-	-	

Table 10. Horseback Riding in the Company of Dogs

Dog Companion Outdoor Recrea Activity	•	Type of Recreationist	Demographic Segment Significantly More Likely to Participate	Demographic Segment Significantly Less Likely to Participate	N
Horseback	By Education	General Population	Some College but no 4-Year Degree	-	2293
Riding		Dog Lovers	-	-	



Walking for Exercise in the Company of Dogs

Gender and Walking for Exercise in the Company of Dogs

In both the general public (p=.000, N=2300) and among dog lovers (p=.008, N=977), women were found to be significantly more likely than men to walk for exercise in the company of dogs in Idaho (see Figure 3). Among dog lovers, the women who walk for exercise in the company of their dogs constitute 40.52% of dog lovers in Idaho. The men are 30.73% of this group. In the general public in Idaho, women who walk for exercise in the company of their dogs make up 17.24% of the entire Idaho population. The men who participate are 13.09%. The findings in past studies that women walk for exercise with companions (humans or pets) at significantly higher levels than men do (Ball et al. (2001) is thus supported in this study, at least as far as dog companions are concerned.

Dog Companionship in Walking for Exercise (Dog Lovers Versus the General Public in Idaho 45.00% 40.52% 40.00% 35.00% 30.73% % of Participation 30.00% 25.00% Male ■ Female 20.00% 17.24% 13.09% 15.00% 10.00% 5.00% 0.00% Dog Companionship in Dog Companionship in Walking Among Dog Lovers Walking in the General Public

Figure 3: Walking for Exercise in the Company of Dogs, by Gender

General Population: N=2300; Pearson Chi-Square=17.607; df=1; Asymp. Sig. (2-sided) = .000

in Idaho, by Gender

(Weighted)

Dog Lovers: N=977; Pearson Chi-Square=7.075; df=1; Asymp. Sig. (2-sided) = .008

in Idaho, by Gender

(Weighted)



Some weighting adjustments had to be made in the analysis in relation to gender (SPSS Inc., Resolution 18084), to make the sample more representative of the Idaho population by gender because, in spite of the fact that a random sample of the entire state of Idaho was obtained from a commercial sampling company (ESP Printing and Mailing, Boise) for the SCORTP survey, women were still under-represented in the final sample. They constituted 33.1% of the sample, whereas they made up 49.9% of the Idaho population in the 2000 census data.

Age and Income, and Walking for Exercise in the Company of Dogs

Among the general Idaho population, other demographic variables that produced statistically significant differences in the outdoor recreation activity of walking for exercise in the company of dogs included age and income. The age group of 36 to 45 among the general public was significantly more likely to walk for exercise in the company of dogs than any other age cohort (p=.000; N=2281). On the other hand, the age group of 66 and older was significantly less likely to do so, compared to the other age groups in the population at large.

Wealthier recreationists in the general population were also more likely to engage in outdoor recreation in the company of their dogs than the less wealthy. In fact, people with annual household incomes of \$80,000 or more were significantly more likely than anyone else to take their dogs along with them when walking for exercise (p=.001; N=2206). Those whose annual household income was \$39,999 or lower were significantly less likely to do so.

Strikingly enough, dog companionship participation in the 'walking for exercise in the company of dogs' outdoor recreation activity becomes insensitive to differences in age and income levels, among dog lovers. As a result, age and income levels had no significant effects on the levels of participation of dog lovers in dog companionship walking for exercise.

Hiking in the Company of Dogs

Gender and Hiking in the Company of Dogs

Figure 4 shows that, in the general Idaho population (including dog lovers), women who hike in the company of dogs constitute 12.25 % of the population of Idaho. The men who do likewise are 9.87% of the population. The difference in gender-based dog companionship hiking in Idaho is statistically significant (p=.008; N=2300). This is however not the case when dog lovers are considered as a separate group. Among dog lovers, there are no significant differences in participation levels by gender in dog companionship hiking.



Age and Hiking in the Company of Dogs

Age categories are other sources of profound differences in hiking with dogs, both in the general public (p=.000; N=2281) and among dog lovers (p=.000; N=968). Hikers between the ages of 36 and 45 are the real enthusiasts of hiking in the company of dogs - their levels of participation are much higher than would be expected, given the proportion of the total sample that they constitute. Older people (66 years and older), tend to be the least likely to hike with their dogs in both groups.

In the general population, people who are 56 to 65 years old are also significantly less likely to hike in the company of dogs, while dog lovers of this age group do not differ in their participation levels from average participation levels.

Income and Formal Education Level, and Hiking in the Company of Dogs

Income levels and levels of formal education influence participation in hiking with dogs at significant levels in the general population in Idaho. Generally, higher levels of income are associated with higher levels of hiking with dogs (p=.000; N=2281). The impact of education levels is significant for people with High School diplomas and people with 'some' College education, without a college degree. The people with High School diplomas are significantly less likely to hike with dogs in the general population, while those with 'some' college education are significantly more likely to do so. These differences are not significant among dog lovers by income or education levels.

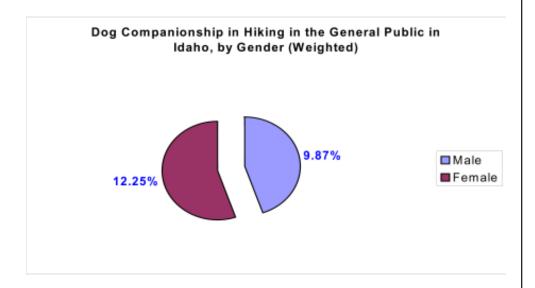


Figure 4: Hiking in the Company of Dogs, by Gender

N=2300; Pearson Chi-Square=6.926; df=1; Asymp. Sig. (2-sided) = .008



Running in the Company of Dogs 'Among Dog Lovers'

Gender and Recreational Running in the Company of Dogs

Gender is a source of significant differences in recreational running with dogs, both in the general public (p=.000, N=2300) and among dog lovers (p=.001, N=977). In both groups, the participation of women is much higher than that of men (see Figure 5).

The dog-loving women who do recreational running with their dogs make up 8.31% of all dog lovers in Idaho, who are 18 years old or more. The percentage for male dog lovers is 3.81%. In the general Idaho population, female dog companionship recreational runners are 3.48% of the total Idaho population, while the males are 1.65%.

Dog Companionship in Recreational Running by Gender -Participation Levels in the General Population and Among Dog 831% 10.00% 8.00% of Participation 6.00% 381% 348% 1.65% 4.00% 200% 0.00% Dog Companionahip in Dog Companionship in Runing/magthe RuningAmang Dag General Public, by Gender Lovers, by Gender ∎ M#e 1.65% 38% 349% 83% □ Female

Figure 5. Dog Companionship in Recreational Running, by Gender

General Public: N=2300; Pearson Chi-Square=17.641; df=1; Asymp. Sig. (2-sided) = .000

Dog Lovers: N=977; Pearson Chi-Square=11.706; df=1; Asymp. Sig. (2-sided) = .001



Age and Recreational Running in the Company of Dogs

In both the general public (p=.000, N=2281) and among dog lovers (p=.004, N=968), age differences are a source of significant differences in running activity in the company of dogs in Idaho. Among both groups (general public and dog lovers), people in the age groups of 45 and below are significantly more likely than other age groups to run recreationally in the company of their dogs.

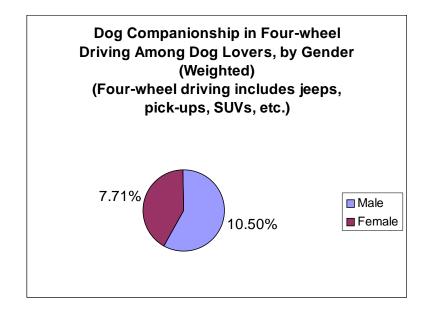
Also, in both groups, people aged between 56 and 65 are significantly less likely to engage in this recreation activity accompanied by dogs. However, while people in the age group of 66 and older are also significantly less likely to run with dogs among the general population, the difference in participation levels is not significant in this age group among dog lovers.

Four-wheel Driving in the Company of Dogs

Gender and Recreational Four-wheel Driving in the Company of Dogs

Dog companionship in four-wheel driving among dog lovers is shown in Figure 6 to be one of the few trail, road and backcountry recreation activities where participation in the company of dogs is a male dominated activity. Men who take dogs with them on recreational four-wheel driving trips are 10.50% of Idaho dog lovers, while women are 7.71%. The difference is statistically significant, meaning that men who are dog lovers, are significantly more likely than women to be accompanied by dogs while driving four-wheel drive vehicles for recreation (p=.002; N=977). There are no significant differences in participation in the general Idaho population.

Figure 6: Four-wheel Driving with Dogs 'Among Dog Lovers':





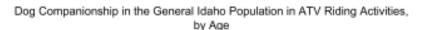
Level of Formal Education and Age, and Recreational Four-wheel Driving in the Company of Dogs

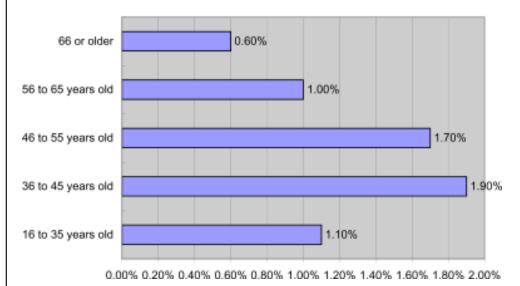
In the general Idaho population, age (p=.000; N=2281) and education levels (p=.006; N=2293) also produce significant differences in participation levels in four-wheel driving, in the company of dogs. People in the age category of 36 to 45 years are the most likely to take their dogs along with them on trips for recreational four-wheel driving activities in the general Idaho population, while older people (66 years and older) are the least likely to do so.

The education category of 'Some College' education without a college degree, is the most likely to engage in recreational four-wheel driving in the company of dogs in the general population. Graduate degree holders are the least likely to engage in this activity (p=.006; N=2293) within that group. Among dog lovers who participate in recreational four-wheel driving activities with dogs, only graduate degree holders differ significantly by education in their participation. They are significantly less likely to do recreational four-wheel driving with dogs than any other education category among dog lovers.

All-Terrain-Vehicle (ATV) Riding in the Company of Dogs

Figure 7: ATV Riding with Dogs in the General Idaho Population, by Age





General Public: N=2281; Pearson Chi-Square=19.896; df=4; Asymp. Sig. (2-sided) = .001



Age and Recreational ATV Riding in the Company of Dogs

Figure 7 shows the general levels of ATV riding in the company of dogs, among Idaho residents. It is not the levels of participation in ATV riding itself, but rather the level of participation in the company of dogs that is the issue here. In the general Idaho population, 6.3% of residents bring dogs along with them when they go on ATV recreational riding trips outdoors. In Figure 7 however, this 6.3% of Idaho residents who go on ATV riding trips accompanied by dogs, is redistributed by age group. People aged between 36 and 45 years of age are the leading group that takes dogs along with them on their ATV recreational trips in the general Idaho population (1.90% of the total Idaho population). They are closely followed by the 46 to 55 year old group (1.70% of the total).

However, comparing the proportion of each age group within the total sample in the study to their percentage of participation, it is only the 36 to 45 years olds who participate at statistically higher levels than would be expected for their group size (p=.001; N=2281). The 66 and older age group is also the group that participates at significantly lower levels than would have been predicted, given their size in the total sample. Age does not provoke any significant differences in dog companionship ATV riding among Idaho dog lovers.

Income Levels and Recreational ATV Riding in the Company of Dogs

With regard to income levels, the lowest income earners (\$0 to \$19,999 annual household income), were significantly less likely to take dogs along on recreational ATV riding trips; while those with annual household incomes between \$60,000 and \$79,999 were significantly more likely to do so (p=.024; N=2206).

Motorcycling (dual sport or dirt bike) in the Company of Dogs

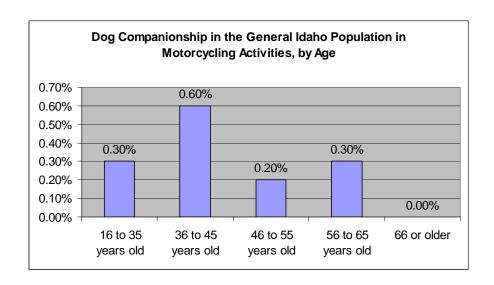
Age and Recreational Motorcycling Trips in the Company of Dogs

It was only in the general population that age was a significant factor in determining who motorbikes with dogs. The age group of 36 to 45 year olds again participated at significantly higher levels than any of the other age groups (p=.008; N=2281). Among dog lovers, age did not substantially affect participation levels with dogs.

Dog companionship in motorcycling, as with the other motorized recreational vehicles, refers to trips to the recreation sites in the company of dogs, and not necessarily riding on motorcycles with dogs. Of the 1.4% of the general Idaho population that take dogs along with them when they go motorcycling outdoors, the age distribution of the participants and their rates of participation are shown in Figure 8. The participation levels of the 66 year olds or older is significantly lower than the rest (p= .008; N=2281).



Figure 8: Motorcycling with Dogs in the General Idaho Population, by Age



General Public: N=2281; Pearson Chi-Square=13.917; df=4; Asymp. Sig. (2-sided) = .008

Backpacking and Mountain Biking in the Company of Dogs

Age and Backpacking and Mountain Biking, in the Company of Dogs

Among Idaho residents, 4.2% participate in mountain biking with their dogs (Figure 9). In backpacking, 6.1% do so (Figure 9). Age is a significant factor in the general population of Idaho in determining the level of participation in mountain biking (p=.000; N=2281) and in backpacking (p=.000; N=2281), in the company of dogs.

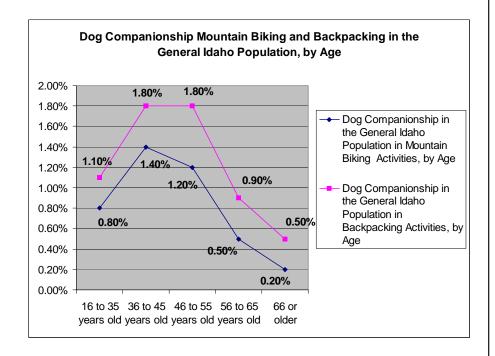
People aged between 36 and 45 years of age are the dog companionship enthusiasts in these two activities, because they are significantly more likely than any other age group to take their dogs along with them for mountain biking or backpacking. On the other hand, older people (aged 56 and older) are significantly less likely to be accompanied by their dogs while they mountain bike or backpack.

Among Idaho dog lovers however, the only demographic variable that creates significant differences in participation in mountain biking is education. People with higher levels of education are significantly more likely to take their dogs along on mountain biking trips (p=0.047; N=975). Demographic variables do not significantly influence backpacking with dogs among dog lovers in Idaho.



In Figure 9, the general levels of participation by age category of Idaho residents in mountain biking and backpacking in the company of dogs peaks in middle age, from about 40 to 50 years of age, and then drops precipitously thereafter. While the 36 to 45 year olds and the 46 to 55 year olds both backpack in similar high numbers accompanied by dogs, the statistical significance indicates that, proportional to their numbers in the sample, the 36 to 45 year olds are more committed to participation in dog companionship mountain biking and backpacking than the 46 to 55 year olds are.

Figure 9: Dog Companionship in Mountain Biking and Backpacking in the General Idaho Population, by Age



Mountain Biking in the General Public: N=2281; Pearson Chi-Square=28.351; df=4; Asymp. Sig. (2-sided) = .000
Backpacking in the General Public: N=2281; Pearson Chi-Square=22.486; df=4; Asymp. Sig. (2-sided) = .000



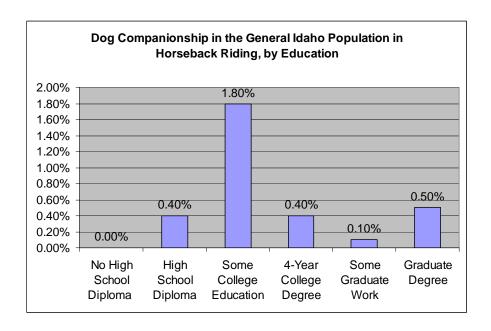
Horseback Riding in the Company of Dogs

Levels of Formal Education and Horseback Riding in the Company of Dogs

In the general Idaho population, 3.2% of people in Idaho ride horses for recreation in the company of their dogs. Of these, those with 'Some College' education (no 4-year degree), are the dominant group of participants (see Figure 10). This group is also the one whose levels of participation in horseback riding with dogs differs significantly from people with other levels of formal education (p=.047; N=2293). They are significantly more likely to ride horses in the company of dogs than Idaho residents of any other education level. Formal education levels have no significant impact on horseback riding with dogs among Idaho dog lovers.

In Figure 10, the 3.2% of Idaho residents who do horseback riding with their dogs are redistributed by levels of formal education.

Figure 10:Dog Companionship in Mountain Biking and Backpacking





Discussion

A few general conclusions can be drawn from the results of the analysis. It can be said that, while demographic differences tend to have a strong influence on the levels of dog companionship outdoor recreation activity within the general Idaho population, Idaho dog lovers tend to be more homogenous in their outdoor recreation participation patterns in the company of dogs, irrespective of the demographic differences that may exist among them.

Age and Trail, Road and Backcountry Recreation Activities

More specifically, a number of demographic characteristics appear to intervene consistently to influence the levels of participation in many dog companionship outdoor recreation activities in the general Idaho population.

As one would intuitively expect, the results of the analysis indicate that being elderly, especially from the age of 66 onward, is a factor that is associated with significantly lower levels of outdoor recreational activity participation in the general Idaho population. This finding supports past research results (King et al., 2000), suggesting that older age is an important deterrent to participation in physical and outdoor recreation activities.

However, in examining the participation levels of older dog lovers (66 years old or more), in dog companionship walking for exercise, recreational running, mountain biking, backpacking, ATV riding, motorcycling, and four-wheel driving, it was found that the old age factor, which had been influential in significantly lowering participation in these activities below average levels in the general population, ceases to be to have the same impact among the dog lovers of that age group. The status of 'dog lover' thus erases the negative impact of older age on the frequency of participation with dogs in these activities.

This suggests that a special relationship with dogs in outdoor recreation settings may be one of these psychosocial motivational intensifiers of the recreation experience that can help older dog lovers overcome the other obstacles that work against the participation of older people in these outdoor activities. This older segment of the population, such as retirees who are 66 years old or more, also happens to be one of the possibly vulnerable groups that may need more encouragement to stay involved in active lifestyles in order to stay healthy. With their numbers rising in the population, the knowledge that dog companionship in outdoor recreation could be a good 'enticement' for promoting outdoor recreation activity among older dog lovers, is an important finding that recreation managers could put to use in planning to provide for unmet recreation needs.

Other results of the analysis indicate that the age group of 36 to 45 years of age is likely to be the most receptive target group for dog-friendly services and facilities at recreation sites, since they consistently participate in dog companionship outdoor recreation activities at statistically significant levels.

This age group is therefore identified as possibly the most appropriate target market to whom dog-friendly recreation sites and facilities should be marketed.



Gender and Trail, Road and Backcountry Recreation Activities

Gender is another demographic variable that consistently provokes differences in levels of dog companionship participation in outdoor recreation activities. Women tend to engage in outdoor recreation activities in the company of dogs at significantly higher levels than men. While it could be that women generally have a 'softer spot' for dogs than men, this finding could also be related to the sense of greater security that the presence of a dog may provide to women in the outdoors. Irrespective of the reasons for the gender-based disparity in dog companionship participation in outdoor recreation, the possible consequence is that the provision of dog-friendly outdoor recreation facilities is one of the ways to promote greater female participation in these activities, or at least to provide women more value for their money at outdoor recreation sites.

Education Levels and Trail, Road and Backcountry Recreation Activities

On the suggestion that lower levels of formal education are a significant constraint on physical activity participation (King et al., 2000), the results of the current analysis were mixed. Generally, lower levels of formal education were not found to be significantly associated with lower participation levels in dog companionship outdoor recreation activity. In fact, in the specific case of outdoor recreation activities involving four-wheel drive recreation with dogs, the inverse was actually found to be true both in the general public and among dog lovers.

Higher levels of formal education (Graduate degree holders), was negatively associated with four-wheel recreational driving activities in the company of dogs.

In the general Idaho population, significant differences in dog companionship participation in outdoor recreation activities occurred in the following activities, in relation to the levels of formal education of the participants:

General population:

Hiking with dogs: People with "some college education" but with no 4-year college degree are significantly more likely to hike with dogs than people in other educational categories. On the other hand, those with a High School diploma are significantly less likely to hike with dogs than people in the general population belonging to other education categories.

Recreational four-wheel driving with dogs: People in the general population with "some college education" without a 4-year college degree are significantly more likely to drive four-wheel drive vehicles for recreational purposes in the company of dogs than people in the other educational categories. Those with graduate degrees are significantly less likely to do so.

Horseback Riding: People with "some college education" without a 4-year college degree are significantly more likely to do horseback riding in the company of dogs than those in the other education categories.



The indication is that, in these three outdoor recreation activities, the most enthusiastic participants in the company of dogs in the general Idaho population are people with some college education, but who have no 4-year college degrees.

Dog Lovers:

Mountain biking - Only dog lovers with higher levels of formal education (Graduate level), are significantly more likely to participate in mountain biking with dogs, than people with other levels of formal education. Those whose level of formal education is lower than the graduate level, participate at average levels.

Lower levels of formal education are therefore not significantly associated with lower levels of participation in mountain biking in the company of dogs, as the findings of King et al., (2000) on activity participation and levels of education would suggest. However, dog lovers with higher levels of education are significantly more likely to engage in mountain biking in the company of dogs.

In both the general public and among dog lovers, one arrives at the conclusion that lower levels of formal education are generally not a serious constraint on dog companionship outdoor recreation activities.

Conclusion

As a general conclusion, the findings of this study reveal that, in the general population, older people may be less likely to engage in trail, road and backcountry recreation activities in the company of dogs than younger people.

However, when those older people are dog lovers, then age is no longer a constraint on these dog companionship outdoor recreation activities. The ability to bring along their dogs on outdoor recreation outings becomes a potent motivating factor for older dog lovers to initiate and maintain regular participation in trail, road and backcountry recreation activities.

If the only source of input in planning the development of recreation facilities and opportunities is the consensus opinions of the general public, there is a likelihood that the intense needs of substantial minority segments of the population, like people who would like to see accommodations made to recreation sites to allow them to bring their dogs along during their outdoor recreation, could easily be ignored.

Another conclusion is that, since the participation levels of women generally tends to 'outpace' that of men at statistically significant levels in trail, road and backcountry recreation activities in which dogs are involved, if ever there is a need to try to encourage more female participation in these outdoor recreation activities, then exploring ways to make dog companionship participation an option, could be one of the possible ways to promote increased female participation.

Generally speaking, research focusing on the positives and negatives of pet companionship in outdoor recreation is not voluminous in the literature, and there is a need for more exploration of this theme in recreation research.



As the concern about a lack of adequate exercise in the population mounts, and the population continues to age, it is no longer enough for recreation resource managers to simply seek to satisfy the lowest common denominator in unmet recreation needs. In order to encourage more people to get involved in outdoor recreation activities, both for their own wellbeing and to ensure that recreation providers continue to grow their operations, the varied needs of patrons should be segmented so that recreation providers can target identifiable groups of clients with appropriate services and facilities that maximize their individual recreation experiences. The incorporation into the planning process of concepts like pet companionship outdoor recreation is one of the policies which could contribute toward more intense outdoor recreation activity participation among growing sections of the population, and should be diligently pursued.

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